

R E P O R T
ON A JOURNEY FROM
TUARAN TO KIAU
AND ASCENT OF
KINABALU MOUNTAIN.

ON my return from a tour of inspection through the Ilanun districts, Pangeran SAHBUDIN, the Chief of Tuaran-Sulaman district, reported to me that the headmen of the several countries around Kinabalu Mountain had been visited by GAWANG, our Dusun Sub-Chief, and had signified their submission to this Government; but had made it a condition of their taking the oath of allegiance that I should personally visit them and witness the usual ceremonies consequent on the above step.

2. As I had heard from Mr. WHITEHEAD that his researches on North Bornean Ornithology would bring him to the vicinity of Kinabalu, I determined to start with him to the interior, but circumstances prevented him keeping his appointment with me at Gaya Island, and later on when he did arrive, I was away in Putatan, so we did not go together. I left for Tuaran on the 16th of February, arriving at the Government Station the next day.

3. Mr. Resident DAVIES had arranged for one of his local Chiefs to meet me at Tampasuk; but although I waited two weeks for him, the expected Chief did not turn up. We were to have prospected together for an edible bird's-nest cave, reported to be near Kinabalu.

4. In the meantime, I took a walk to Madang village on the Sungei Damit, a tributary of the Tuaran River. Here is the site of a fair, which was revived by the Government in

1885, and has ever since been well attended by Hill Dusuns in the vicinity of the Tampasuk River, and Bajaus from Tuaran, Sulaman and Mengkabong.

5. *Enroute* I noticed quantities of the wild pine-apple growing on old cleared hills. On Bukit Tegâs there are several specimens of the *kapas* (cotton plant). The plant here appears as a low straggling tree having pointed berries three inches long. One bush averages a yield of $2\frac{3}{4}$ lb of cotton.

6. Madang village is composed of two houses; one, the "Government Hotel," intended for the accommodation of the hill natives; and the other AHMAT'S house. This AHMAT is a Bisaya from Padas, whose acquaintance I made some four years ago in Papar. He followed the late Hdji JAMALUDIN to Tuaran, and on the latter's death, bought his house and took a Dusun wife. Being slightly useful, he is now recognised as the local headman in the district; which is thinly populated and in consequence easily governed. The temperature at Madang at 6 a.m. was 65° , height above sea level 143 feet.

7. On my return to the Station, I found a flat-bottomed *gobong* or dug-out awaiting me, which I had previously ordered. Length 28 feet, breadth $3\frac{1}{2}$ feet. This is intended to be used when the river is in flood or for shooting rapids.

8. I started for the interior on the 28th February, bringing up my baggage in the dug-out, and stopped at Telibong, sleeping in IBU'S house. IBU is a Bajau, married to a Dusun woman, and has settled down in her village. This village is situated on the left bank of the River Tuaran, just above the junction of the Telibong branch.

9. Next morning found me at Buntai Fair, on the right bank of the Tuaran River and forty minutes' walk from Telibong village. In ordinary weather, the ford across the river is only thigh deep. The fair is always well attended, and in spite of the recent floods, over five hundred natives had assembled who politely awaited my arrival to commence bartering their jungle produce, tobacco and cereals, for fish and dry goods, brought by the Coast tribes. LAMPAYAN, headman of Kabong village near Kinabalu, delivered a message of greeting from Datoh KABONG of Kiau and was glad to hear

I was starting at last. We slept that night at DUMANKER'S house near the fair. Our host, although a Dusun, has four wives and seven children, each wife contributing her quota of the latter. Buntai Village at 6 a.m. thermometer 72° .

11. On the 2nd March at 10.55 a.m. left Buntai Village and followed up the Tuaran River to its junction with the Bawang stream; we then travelled along the ridges which form the watershed on the true left side of this stream. This was the route taken by Mr. ST. JOHN in 1858 on his way to Kinabalu, and he has ably described the track to Sinilau village, as being steep, slippery and the climbing exceedingly warm work. We passed over Kamis and Tiwong Hills. On the latter, the stock of water brought up in bamboo joints was finished, but I was agreeably surprised to find out that bamboos, even when growing on hills devoid of springs, secrete in their second or third joints from the ground, a quantity of pure cool water, a great boon to the thirsty traveller. We arrived at Sinilau village at 2 p.m.

12. This village possesses six very scattered houses and two joint Chiefs—MAH TANGARIS and MAH SOLONGKOD—who have paid poll-tax to the Government. They were absent until night in their padi fields.

13. The houses here show me that I am at last in the interior and beyond coast civilization, for they are dirty, infested with bugs, and every moment the howl of a dog indicates a too close proximity with the owner of a cooking pot, and pigs grunt harmoniously under the houses. Sinilau village at 4.45 a.m. thermometer 71° , height 1,248 feet above sea level.

14. I numbered my coolies next morning, and found I had sixteen Dusuns, one Brunei Malay, and two Dyaks. The Government party consisted of myself, Pangeran SAHBUDIN, Clerk USMAN, GAWANG, the Dusun Sub-Chief, and two privates of the British North Borneo Armed Constabulary. Each coolie had his sword or kris and we had besides six Snider carbines, one smooth bore No. 12 calibre, and one Spencer seven shot repeater. GAWANG carried the flag on a long spear, and an empty cartridge belt as a mark of distinction. I had engaged these coolies at nominal wages, 15 cents per

diem and rations while marching, and 10 cents per diem when resting, the Dyaks getting 25 cents and 10 cents, with rations as they represented the gun-bearers.

15. Our start was delayed by some bed-loving coolies who were punished by getting the heaviest loads to carry. We had to walk up a steep incline before arriving at the flat ridge representing the top of Nilau hill, 2,226 feet above sea level. Below, on the left of the path, the hills rising out of the mist resembled islands in a vast sea. Further on, we passed a large pond, at the foot of Tingkahang hill, forty yards in diameter and from three to four feet deep. This, the natives say, is never dry in the longest droughts, owing to numerous springs. The pond resembles an old Roman camp, filled up with water. Ingkahang hill is 1,929 feet high. Passed the junction of an old path used by head-hunters before the cession. Manjok Sirong hill, 2,411 feet.

16. The hill leading up to Kalawat village is not so steep as its predecessors, and we arrived at 9.30 a.m. finding most of the men absent. The son of the Bajau headman, however, was there to welcome us, and presented me with the usual stirrup-cup before leaving—a small bamboo of cocoa-nut toddy mixed with the bitter and intoxicating bark of the *rasak* tree. To procure this bark, these natives have to buy it at Buntai Fair, from traders who obtain it at Papar.

17. We toiled up Kalawat hill, at the back of the village, and found it a toilsome task. Were it not for the holes made in the paths by buffaloes' feet on some of these hills, the coolies would be overbalanced by their loads and to add to the task, the jungle has been cleared off, leaving ferns or grass only two or three feet high and no protection against the sun. I was told Kalawat hill was the large hill between this and Kiau. I found this correct. Passed a *tuba* garden. This is an intoxicating weed which is mashed up in water, changing the latter to a milky coloured fluid, and then poured into a stream. All the fish within a half mile are quickly stupefied and easily caught. Despairing lovers sometimes use this weed to end their sorrows.

18. From Kalawat hill we descended at a rattling pace to Tinuman stream, a tributary of the Mantaranau river at

Bungol. Here we had a bath, and cooked our rice. I had seen the men eating a semi-transparent fruit called *kandis*, and followed suit. It had a pleasant acid taste at first, but afterwards my tongue and palate felt as if affected by a strong astringent. This unpleasant sensation lasted until night.

19. After finishing the inevitable rice and tinned mutton, I went specimen hunting and succeeded in picking up conglomerate mixed with crystals, hornblende and quartz. Amongst the rapids, some Dusun had placed a fish trap made of bamboo, but it was empty.

20. One steep but small hill brought us to the banks of the Mantaranau river, we had to cross it and its tributaries several times. At 2.30 we arrived at Bungol. This village is built on the sides of a hollow which looks pretty, the grass having been grazed short. We took up our quarters in BANSAYAN'S house, it being large and the headman—Datoh BENAWA—being absent. But BANSAYAN said "you cannot enter here," of which we took no notice until GAWANG had arranged matters at Datoh BENAWA'S house where we shifted, the culprit following and asking for pardon. At the Datoh's I met two men SI DAIN and SI GIBAN and two women KAMBING and KAUDEH who had just arrived from the Sindâton district bringing tobacco for barter. Their village is one day's journey from Bungol and the headman pays one buffalo as poll-tax this year.

21. I append a sketch of the whereabouts of Sindâton as described by SI DAIN. The women wore stained rattan and brass chainwork, a foot broad around their substantial waists and brasswire on their lower arm which they only take off on becoming matrons. Their dress was a short indigo dyed petticoat reaching to the knee and a similar cloth 14" by 4" across to the bosom sustained by a few coils of stained rattan. The men, as everywhere in the interior, wore only a dirty loin cloth. DAIN stated that all the villages on both sides of the Sinalang river are disposed to join with Sindâton in tendering submission to Government, and I intended to have visited this district, but was unable to carry out the whole of my programme.

22. As we had several cases to settle, next day became Sunday. Dyak JEMAIN borrowed my casting-net and caught a lot of fine fish, but Pangeran SAHBUDIN informed me that the large ones were garbage fish; in spite of this the men seemed to appreciate the rare treat of fresh fish. I walked up the Mantaranau, which passes through lawn like valleys, bordered by low hills, and I certainly thought I should like to spend a week here and amuse myself fishing, for the pools are full of the finny tribe who were jumping at the flies in a systematic manner. This river joins the Kamulau, at whose source is Kalansatan, the village of GANTOK, the Tegâs Chief. Kamulau River is a tributary of the Tuaran River, flowing in on its right bank between Linggah and Bayag villages.

23. In the evening, I met the Rungus Maragang Chiefs and settled a blood feud. It appears that KUBUD of Rambatuan informed these Chiefs that Tapakawn village near Madang had not come under the Government (a falsehood), so they killed a certain man, SIMPAGAWN, in retaliation for the brutal murder of 18 women and children in 1884 by NAKODA RADIN, acting under Pangeran KAMANDRA'S orders, who was then Brunei agent in Tuaran. In consequence of the Rambatuan massacre, when we got the cession of Tuaran, NAKODA RADIN (a Sarawak Dyak who had left his country years ago) was wanted, but he fled to Mengkabong, and died there in 1885. Before the Rambatuan feud could be settled by us, these Rungus Maragang Dusuns retaliated, almost causing a fresh outburst of the feud.

24. Left Bungol on the 5th March in company with Datoh BENAUA. Kampin hill, beyond the second crossing of the Mantaranau, was terribly steep, but the Dusuns had thoughtfully cleared a path through the *lalang* grass, a fathom wide. The height of the hill is 2,363 feet, from the top of Kampin hill, Kinabalu bore E. by S., Kiau S.E. by E., and Pinokok E. by N. $\frac{1}{2}$ E. Descending its eastern slope was no easy matter owing to the steepness of the path, the soil being clay, covered with loose bits of sandstone, even on the steepest places, *padi* had been grown and I cannot but admire the indifference to fatigue which would enable the local females to endure the consequent toil.

25. At the foot of the hill, flows the upper water of the Tampasuk river locally called Sungei Kadamayan. Our path brought us to the side of a pool with a gravel bed, and here we halted to cook and bathe and collect specimens. From Bungol village to this ford we took $3\frac{1}{4}$ hours to accomplish the distance, the pace being slow. ST. JOHN mentions his guide took him by a longer route occupying 8 hours.

26. Amongst the specimens we found, were serpentine, granite, quartz and hornblende, and in the sand, bordering the stream, I washed out a large quantity of mica which at first greatly excited the natives.

27. The land on the right bank of the Tampasuk is flat and planted with *padi* and *kaladi*. We met LAMPAYAN, the headman of Kadong (spelt Koung by ST. JOHN), who led us to his village by a path which followed the river. A few minutes' walk brought us to Kahong, but Labong Labong village being only a little further on, we declined his hospitality.

28. Kahong is built on a grassy sward close to the river on its right bank. To get to Labong Labong, we had to cross the Kadamayan twice and climb up a steep and slippery hill before arriving at the village. About 200 yards distant from the houses we had to climb over a stout bamboo fence which I am told is intended to prevent the cattle straying of which the people here have a goodly stock. At 12 noon we were installed in MAH TAMPULAN'S house, enjoying unlimited quantities of toddy and cocoa-nut water. TAMPULAU, the practical headman, for MAH TAMPULAN is getting old, arranged that each house in the village, should provide food for two coolies; he himself attending to the leaders.

29. The name "Mah Tampulan" means "the father of Tampulan," from a custom common amongst the Hill Dusuns, Illanuns and Sarawak Dyaks, who, when their sons are married, assume their name adding the prefix. *Mah* is a contraction for *Tamah*, father—*Tidi* meaning mother. MAH TAMPULAN informed me that Mr. WHITEHEAD was staying at Melangkap, lower down the river; and was obtaining quantities of birds. We devoted the evening to hearing cases and examining into various reports of birds'-nest caves. Three

young women entertained us to some sweet singing called *Inggano*. The songs treated of love and courtship, and the allusions must have been amusing, for the men were constantly laughing, but I am told nothing improper was mentioned.

30. I wanted to purchase a tiger-cat's skin, but the owner would not part with it for two fathoms of black cloth and, for the benefit of future traders and travellers, I declined to give more. The Hill Dusuns are keen traders and should one man give a high price for anything, the next man has probably to give still higher or do without it.

31. It was arranged that Labong Labong village should give two buffaloes this year as poll-tax, and pay the regular amount next year. Birds'-nest caves are reported to have been found in Kinabalau facing Kiau, at Kaporangan, and in the Labuk district at Kandasang village. It was arranged between Lampayan and Tampulan that a buffalo should be sacrificed to-morrow in honour of the treaty of friendship.

32. Next morning at 5.45 a.m. the thermometer registered 71°, aneroid 1,659 feet above sea level. When BUNAHOW and Datoh KABONG, Chiefs of Kiau, arrived, we all adjourned to the village green, and found a young buffalo had been tied to a tree at the foot of a large boulder. The police and gun-bearers fell into position and a volley was fired, the British North Borneo flag hoisted, and the local Tuaran flag (white ground, a red triangle with "Tuaran" in red below) presented to TAMPULAN. While Clerk USMAN was cutting the buffalo's throat, a rectangular stone was planted upright in the turf and Coast and Hill Dusuns laid their hands on the stone, swearing eternal friendship. GAWANG states he has visited sixty-four villages, and they all request a similar ceremony.

33. In the evening, we had some further talk about birds' nests. Datoh KABONG reports caves at Mumus hill, but the natives of Bilawng stupidly eat the nests and do not allow outsiders to interfere.

34. Descended Labong Labong hill to the junction of two streams, S. Kimitakeh and Tahobang. Here we debated which way we should go, either by the Kadamayan river or over the hills to Kiau. Finally the hill route was chosen. Datoh

KABONG begged us not to drink of the Tahobang water, for this stream supplies water to Kiau Nuloh, a section of Kiau, with whom he has a social quarrel: should we persist in drinking, we certainly would suffer terribly, for on taking refreshments in his house, the unfriendly waters would create discord inside us. The hill climbing was not severe and *enroute* we had a splendid view of Kinabalu.

35. Kiau village is situated on Hangkong hill and divided into three sections—upper, middle and lower. The slopes around the houses are grazed by cattle and buffaloes, water is brought down by means of bamboo piping. At 6 a. m. the thermometer registered 70° ; aneroid giving $27^{\circ} 13''$ or 2,635 feet above sea level as equivalent to the height of middle Kiau. Datoh KABONG is the headman of the middle village together with BAGING, BUNAHOW owns the lower village. The upper village, Nuloh, I did not visit. Even Lower Kiau is a long way above the Kadamayan, for the ground adjoining the river is only used for planting *padi*, vegetables and tobacco.

36. I had brought "Life in the Forests of the Far East" with me, and occupied myself in translating part of it to the Kiau natives. My host was Datoh KABONG's relation and was called KULABID. Our quarters were in a long house containing 4 doors which equals 4 families. My mattress as usual was laid on the sleeping dais, outside in the passage, and this, having always windows closed, was cool and airy. Round the foot of my bed, sat the young women and Chiefs who eagerly examined my field glass, illustrated books, and a few drawings I had made. H. S. KING & Co.'s illustrated catalogue was in special demand, they even got leave to take it away to other houses to show their friends the jewelry section. I bought a gourd pan-pipe, similar to that used in Sarawak, for one fathom black cloth and found the notes to be very sweet, and a great contrast to a concert performed by a litter of pups in an adjoining bed-room.

37. The married women who have children to look after are marvellously dirty. As they do not wear the breast cloth, one is convinced that the curious custom of eating earth is not alone confined to Bajau women in a certain stage of

their life, but applies equally to the Hill Dusun baby who, unlike Lord CHESTERFIELD, seems to prefer to swallow his peck of dirt at one meal. The girls and childless wives wear the short petticoat and breast cloth, but do not load their ankles with tinkling brass fetters like some of their coast sisters, but the brass chain work and rattan is worn round the waist. The men are comparatively clean and shave their heads like the Islam native, which is greatly to be commended.

38. Took a stroll up the hill side as far as BAGING'S house. He reports Mr. WHITEHEAD to be leaving for Gaya in 5 days' time. I met SI KAMOH, one of the men who followed Mr. LOW up Kinabalu. We had a trifling disagreement in the afternoon, as BAYING asked for *chukei jalan*, or road-tax, but the enormity of his conduct was explained to him and he desisted.

39. We arranged to start to-morrow for the birds' nest caves at the Kadamayan river. The meeting ended by the Hill Dusuns going out to look for a suitable cow or buffalo to be sacrificed during the friendship ceremony. After numberless delays, the Kiau Chiefs succeeded in obtaining a goat, and at 5 p. m. the ceremony commenced.

40. Before the treaty stone was planted, I laid a cent in the hole, intended for the stone. My servant handed me a Straits Settlements coin in place of a British North Borneo cent, but the mistake was not detected. Kinabalu was called upon to bear witness to the treaty, and the sun, which had hitherto been hiding behind a bank of clouds, broke out and all exclaimed "A happy omen!"

41. The sunset that evening was lovely, showing all shades of gold and silver and lighting up the purple mass of Kinabalu, towering overhead, which reflected back the sinking sun from its crystal rocks.

42. To-day, the 9th of March, saw us getting ready for a start. Datoh KABONG and BUNAHOW promised to come down to Tuaran, but the former said he was afraid of Orang Kaya BLADAU, one of the coast Dusuns, who is a well-known swindler and who has since met his deserts. At 10 a. m. we set off, leaving 13 coolies behind, and descended to BUN-

AHOW's village where we picked up that Chief, who, however, was unacquainted with the position of the caves, but LUMBAG, his aged follower, agreed to come after us on the next day and point them out. Descended again to the Kadamayan stream and followed up its bed, till we halted at a cave at the side of the river and had tiffin.

43. The bed of the stream is full of hornblende, granite, quartz and limestone boulders, and we picked up numerous specimens containing copper or copper pyrites, or perhaps only iron pyrites. Only a little further on, we came to Mitunbok gorge, with an overhanging cliff on the left bank, which we made our halting place for the night, greatly to my disgust, for we were only a few miles distant from Kiau, but BUNAHOW said he had agreed to wait here for LUMBAG, the guide, and as there were two roads to the caves he might miss him were we to go on. At 4 p. m. the thermometer registered 72° , and at 6 a. m. I ascertained the height to be 2,651 feet, or only 16 feet above the village of middle Kiau.

44. Our beds were certainly not the most comfortable, as we had to lay the mats on gravel after removing the boulders, but a few wild plaintain leaves helped to alleviate the hardness. Our conversation was limited owing to the noise of the rapids only a few feet distant. The river rose slightly the next day and I noticed that the flood mark was long away above our heads, but a hill with a tolerable slope a hundred yards distant would have afforded us a shelter against freshets. Although LUMBAG promised to meet us in the morning, he did not arrive until 1 p. m. excusing his lateness by saying he was drunk. When at Kiau, the headman Datoh KABONG had promised to forward rice which the carriers were to bring us next day, but mistrusting his promises I sent two parties back to hurry him up.

45. The Dyaks amused themselves next morning cutting through *bagong* stems, a soft wood, and we all went in for cockshies at a stone attached to an overhanging creeper and swung back and forward. At 8.15 a. m. we started for the caves. Just before we left, LUMBAG informed us that the road to the caves led to Kinabalu. I had previously been told at Kiau that to ascend Kinabalu necessitated re-

turning to the village and in consequence had only provided for a two days' tramp, as also had the men, but we determined to push on and lose no more time. We followed the river up for half a mile and turned up the right bank. The almost obliterated path led us up a hill side, very steep and so slippery that had it not been for the numerous roots, which we were able to haul on in getting up, I think we should have been obliged to look for another path.

46. On reaching the hill top, we followed the track along the ridges in an E. N. E. direction. At 9.20 a. m. the aneroid registered 3,482 feet. Thermometer 74°. At 10.45 a. m. thermometer 70°, aneroid 4,806 feet. At 11.26 a. m. 72° and 5,228 feet. Looking at the Kadamayan, we saw a waterfall, ST. JOHN describes it as follows :—"At one place " we had a view of a magnificent cascade * * * * the " stream coming to the edge of the precipice throws itself " over and in its descent of above 1,500 feet appears to " diffuse itself in foam ere it is lost in the depths of the dark " wooded ravines below." I stood on a projecting root and examined this noble fall through my field-glass, but could only see a portion of the descending water and cannot therefore say what the height may be owing to the spray and mist, but I think it worthy to be called Regina Falls in honour of Her well beloved Majesty. The path at this point was only a foot broad, on either side were sheer precipices.

47. At 12.5 p. m. the rain fell heavily but after each man had eaten a biscuit we plodded on. From here the path began to descend, direction E. S. E. ; we had to pass along the face of a sloping rock down which the rain water was running. Some moss growing on the rock afforded a precarious foothold but so fragile that on hearing some one behind slip, I could not turn round to see who it was. It turned out to be the Brunei Malay Pangeran BAKAR and without doubt he had cause to congratulate himself on a narrow escape.

48. At 2 p. m. the men begged me to halt as they could not stand the cold any longer so, choosing a flat spot, my tent was unpacked and erected horizontally. It accomodated the whole of our party, 26 in all. Our first attempts to obtain fire were unsuccessful, owing to the wood being wet, but with

the help of Kerosine oil, we soon had half a dozen fires going.

49. The Dyaks reported having seen Tiong Tuan village from the "slippery rock." I find that we have arrived at the caves at last, as the river Kadamayan is only 100 yards distant.

50. I awoke at 2.45 a.m. and found the thermometer registered 59°. At half past five I walked to the river and saw above me a small cascade 70 feet high and to its left the entrance to two caves. A few swallows were flying out, but these Pangeran SAHBUDIN said were not the "cave swallow." NANGGAI and RAJIB tried to climb up, but a log, which they would have had to cross was too fragile and we deferred the search until ropes of rattan could be made.

51. I sent back GAWANG, BUNAHOW, Datoh BENAWA and two coolies to hurry up MAPADRI who is to bring the rice and we are to meet at Tamborongah, the next stage.

52. We then commenced making ropes with the *janggut* rattan, a pretty species about the thickness of a drawing pencil. When the rope was finished, we found that, owing to a small precipice above the bank of the river, another rope five fathom long was necessary. Some of the men cut sticks and laid them on a frame, so as to form bed places for us all. As usual rain fell in the afternoon, but this time we were under cover.

53. The caves were examined next morning by RAJIB, and proved to be simply shallow holes inhabited by bats and swallows.

54. At 10 a.m. started for Tamborongah. Our guide LUMBAG led us through the jungle by an imaginary path up and down hills, crossing the Kadamayan and sundry small streams. At 12.55 we emerged out of the jungle and had a good view of the surroundings from the crest of a hill 6,077 feet high. GAWANG and his party were observed toiling up the hill below us, so we hurried on, and ten minutes after arrived at Tamborongah. This may have been, ages ago, the site of a mountain village, but at the present day there are only two small huts usually called *sulap* without walls and thatched with leaves. The thermometer registered 55°. As the rain had just stopped, my followers were wet and paralys-

ed with the cold, so I had myself to make a well to receive the tiny rivulet which oozed out of a marsh close at hand.

55. GAWANG, stupid GAWANG, had only brought up about 25 catties of rice and only 4 small rolls of tobacco. and I naturally *blessed* him and his coolies heartily. It simply meant partial starvation (twenty-two men accompanied me to Kinabalu cave (Paka-Paka), for this rice had to provide us with our only meal this day, one to-morrow and one the next day, or else to return. I here take the opportunity of stating that the Tuaran Dusuns are superior to their neighbours, for they never even grumbled once at the commissariat, which department was woefully defective and although they were half starved, always carried their loads manfully and never suggested a retreat. GAWANG had also brought up a white fowl and a few paltry brass goods intended as propitiatory offerings to the spirits on Kinabalu.

56. When we arrive at Paka-Paka cave, to-morrow, we are not to mention the word "Kinabalu" or wish for sunshine, for if we do so it will anger those mighty spirits that punishment follows in the shape of torrents of rain, and if we spread out cloths, a violent gust of wind will be the result.

57. I had my tent erected and slept inside with Pangeran SAHBUDIN and a boatman. I should say tried to sleep, for our damp wood fire caused us terrible torture. My tent was made in Singapore by MCALISTER & Co., and I give them every credit for turning out a good article which has withstood all vicissitudes of weather.

58. Next morning I took several compass bearings, Maunkan Island near Gaya W. $\frac{1}{2}$ S., Kuala Mengkabong W. by N., thermometer height of Tamborongah 7,328 feet.

59. Started at 7.40 a.m. by a fair path compared to yesterday's. The old guide and three coolies left us to return to Kiau and bring up more rice and await our return at Tamborongah. We passed several places covered with ferns, from which a good view might have been obtainable, had the mist cleared. We stopped to smoke a cigarette at 8,643 feet. The air was very cold and kept so for a long way up. A short way above, the path crossed a marshy spot but I did not notice the tracks of any beast. In fact life seems to be

non-existent in these high growing jungles, for during the whole trip from Mitimbok gorge to the top and back, our party only saw two birds, a species of starling and a swallow.

60. I have forgotten to describe the splendid pitcher plants and pretty blue and white flowers which we passed, and, what pleased my eye better I must confess, quantities of large gutta-percha trees, india-rubber vines and rattans. The latter were rather too plentiful, especially the thorny rattan (Malay *iting*) and our hands bore its traces for more than a week afterwards. I imagine the thorns are poisonous.

61. We had no cliff climbing to do to-day, but had to be careful in picking our steps, for the moss covered roots offered a treacherous foothold at best and when walking quickly a leg would disappear up to the thigh in some hole. Coming down an incline I received a terrible bump from a low branch stretching across the path, but the cold air soon took away a severe headache which followed.

62. The moss up here is of different shades of crimson, and retains a quantity of ice cold moisture. Nine thousand feet or thereabouts appears to be the highest limit reached by the rattan either the marketable or thorny species.

63. Dilana Hill, or it may be spelt according to the Dusun rules of syntax, "Da Lana" (that is Lana with the article *da*) is a much more important hill than Kinabalu, for on its eastern side are the sources of the Sugut and Labuk rivers. The path led us over the top and I ascertained the height to be 9,700 feet, and taking the length of the former river at 130 miles, this gives an average fall of 1 in 70, which will equally apply to the Labuk river.

64. The Sugut river allows even heavily laden dug-outs to be poled up as far as Langsat, 105 miles by water from its mouth, I therefore hope on a future journey to the *east* side of Kinabalu to be able to give an impetus to the already large export trade in jungle produce which leaves that river and in a lesser amount, the Labuk.

65. We then descended into a hollow, but soon had to climb up the true "trunk" of Kinabalu as the natives say. Almost on a level with Dilana top, I came to a bleak spot, covered with coarse *heather* and where numerous boulders

lay on every side. Here we rested for a few minutes and enjoyed a cup of cold tea. During the next half hour, we had to crawl under and over fallen trees and finally arrived at Paka-Paka cave at 12.15 p. m., height 10,262 feet, thermometer 58°.

66. At 1 p. m. the sun broke out, but no view could be got, owing to the thick mist. Soon the rain began to fall, and in a few minutes the Kadamayan, which had been a shallow stream running past the entrance to our cave, became a roaring torrent bounding over the large boulders in its bed. Equally soon the stream subsided when the rain stopped.

67. Paka-Paka cave is a shallow hole scooped out of a hornblende cliff by the adjacent stream. Its floor is earthy and covered over with charred wood from deer-hunter's fires. The entrance was partially blocked up with my tent, and three fires were lighted. My mat occupied the back part of the cave remote from the fires, as I could not endure the smoke torture of last night again. The Dyaks and Kiau men slept on a ledge of the cave, warmed by the smoke, and the rest disposed themselves around the fire. I put on an extra suit of drill clothes, singlet and stockings and over all my water-proof coat, lending my blanket to Pangeran SAHBUDIN, who had fever; and in spite of my precautions did not sleep a wink. There was an entrance for the cold wind, and the thermometer registered 52° at 5.30 a. m. inside the cave.

68. I asked for volunteers in the morning, obtaining eleven who wished to accompany me up to the summit. Their names were written on a page of a note-book and put in an empty (alas!) bottle of three-star Hennessy's brandy. The cork was secured by thread and candle grease. The names were, Pangeran SAHBUDIN, Government Chief in charge; Police Constables NANGGAI and NEHANGAN, and a Dusun relation; JEMAIN, SOMAH, PANGOLIN, MAPADRI, coolies; GAWANG, two guides (LIMBAWAN and TAMBIAS), and myself; twelve in all.

69. We started at 7 a. m. After twenty minutes' climb passed out of the thick jungle, having had constantly to clear the obliterated path with low branches on every side, and came to the granite face of Kinabalu. I managed to

walk up with my shoes, but found it dangerous, so took them off. The easiest slope lay up the tiny rivulet representing the Kadamayan or Tampasuk source. We stopped at 10,712 feet and had a view of the waves of mountains below bounded by the Labuk sea on one side and Papar on the other. My compass bearings were, East Coast, sea S. E. by E., Gaya W. S. W., Sindatun hill S. E. by E., which would prove that I was ascending the south side of the mountain. The granite face is very regular, except in the vicinity of the peaks, and is only occasionally varied by small clumps of twisted stunted trees somewhat like firs in the matter of foliage.

70. We first had to scramble towards the eastern side, then towards the West, finally straight up to the summit, arriving at 10.10 a. m. in a very cold and hungry condition. Owing to the thick mist, we had some difficulty in overtaking our guides and GAWANG. On rejoining them, I was rather disappointed to hear that they had just been up the peak which ST. JOHN ascended in 1858 and which ranks as No. 2 in height. I enquired if they had seen LOW'S bottle but GAWANG answered *entah*, meaning "who knows?"

71. We were sitting in the gap between Victoria Peak the highest and most easterly, and the adjacent peak, which the Kiau men have just climbed. A piercing wind was blowing in furious gusts through the gap and our hands were numbed with the cold. I took my pocket aneroid out, and was surprised to see it only gave 11,312 feet above sea level as the height of the summit. Thermometer registered 54°. The sun was shining brightly, but it failed to dispel the mists below. Victoria Peak I calculated to be 250 feet high, and the next peak to the W. (St. John's Peak) about 100 feet in height, so the aneroid height plus 250 should give the total height of our "show mountain" 11,562 feet, or over 2,000 feet lower than the usually accepted height 13,698 feet.

72. I advanced to the edge of the abyss and looked down and saw a gulf of unfathomable depth whose bottom was lost in mist. Then, a policeman ran forward and pulled me back saying I was sitting on a wall of loose stones which created a feeble laugh for it would require a lever to lift the square

blocks of this ancient parapet. Pangeran SAHBUDIN informed me he saw the last or fourth side of this gulf, which I required in order to work out the volcanic theory. A momentary clearing of the mist had revealed the further rim of this crater, far below us. There must have been two great eruptions in former ages. The first, burst through the rim of the crater on our side (the southern), and left fragments now represented by the peaks; the second broke away the northern or further rim and reduced its height. Could not the smooth face of the gigantic granite slabs, all at the same angle, be explained by reason of friction from a mighty flow of lava?

73. That Borneo or even British North Borneo has not been volcanic is incorrect, for Mr. Resident DAVIES has obtained lava specimens, and I found some in a stream on Mallawalli Island in 1886, which I submitted to Mr. A. H. EVERETT, who was on a visit up coast at the time.

74. I was disappointed that Victoria Peak was inaccessible and when I asked for volunteers to come up with me to the top of St. John's peak, I received no response and did not press the matter, determining to get to the top of Victoria Peak some other day. We hurriedly sacrificed the fowl, and started down when GAWANG said he would go up St. John's Peak and lay my bottle and the brassware on its summit—which was done and he soon overtook us.

75. When 209 feet down, the mist around Victoria Peak cleared away and we noticed that its side facing the East was at a moderate angle, and quite capable of being ascended. But the gruesome mist was again creeping around us and our empty stomachs warned us not to delay on the road, so we left the feat till next occasion, but not without regret.

76. By this time my stockings were worn out but the granite was just rough enough to prevent sudden slips without wounding the feet; occasionally, in the crevices, one came on a few jagged fragments and a contortion of the features showed an unwary step, but on the whole I preferred descending to our late toil going up. Down the steeper inclined slabs, the Dyaks assisted me, holding a hand a piece and only once, near the jungle, did I fall on my back, nearly dashing

my brains out against the rock.

77. When we passed along the slimy, water-covered granite where one of Sir H. LOW's coolies slipped and nearly rolled down a precipice, we only had a sharp edged crevice to walk on, but a look downwards made us forget the pain. I picked several specimens of mountain lilies, the British North Borneo fir and some of the "ghostly buffalo" grass on the way, and had a long drink from the ice cold spring which flows out as the Tampasuk or Kadamayan River. I have omitted to mention that the lofty peak seen by ST. JOHN S. $\frac{1}{2}$ E. from the summit, is probably Trus Ma lai hill in the interior of Padas, bearing from our point of view S. W. by S. I am not certain but that this hill may be Madai hill in Bawel bay.

78. On arriving at the jungle, the rainy mists were dispelled by a brilliant burst of sunshine and I felt rather warm, being obliged to take off an extra singlet. The thermometer registered 69° in a spot sheltered from the wind. We arrived at the cave at 12.30 p.m. and were glad to see our less active followers had at any rate prepared a meal, which we attacked with the appetite of men who have been starving for 29 hours. Meanwhile, our loose baggage was being packed and when ready, I despatched half the men with it, with orders to await us at Tambarongah. I informed my men that I should give two cents for every perfect pitcher plant and other prices for other plants if brought safely to Kiau.

79. We started at 4.45 p. m. and although we pushed on, my strained knee prevented much progress. Before reaching our camp I had to light candles, but we got along without accidents. To-day we have gone through $8\frac{3}{4}$ hours' hard walking and climbing and I was not surprised to find myself seized with severe cramps in both legs after supper.

80. Datoh BENAWA, BUNAHOW and TAMPULAN from Kiau gave me all the local news on arrival. They had brought up rice and tobacco as arranged.

81. We started late the next day, not leaving before 9 a. m. and took the path GAWANG had used, which follows the left bank of the Kadamayan. The hill was very steep, and slippery from the tracks of the preceding coolies. My knee

got worse and my progress slower every minute, so I sent on most of the men and followed at my leisure. Had a narrow escape from falling down a precipice, owing to a rotten branch breaking, of which I had hold. The outer end was brought up by a projecting stone and allowed me to recover my balance. I found my men waiting at Labong stream, under a overhanging cliff of conglomerate and crystal. They had arrived there in three hours from Tamborongah. The thermometer registered 64° . I felt completely crippled and sore all over.

82. The thermometer fell to 61° at 6 a. m. We started at 9 a. m. following down the Labong for some distance. Left the stream where the water-falls commence and struck up the left bank going S. W. by W. towards the Kadamayan. Crossed a tiny stream, Sungei Solawkôn, at 11.25 a. m., arrived at noon at the Kadamayan and after our meal started down the river at a quick pace, fearing floods as the river was rising. Stopped again at Mitimbok gorge and finally arrived in Kiau at 6 p. m. putting up at BUNAHOW'S house.

83. Here LIMBAWAN, my guide, informed me through GAWANG, that he had brought down Messrs. LOW and ST. JOHN'S papers; the former's in a bottle and the latter's in a tin. I felt vexed at his having deceived me, but said nothing and exchanged another bottle for the one in question. From the tin, a small cocoa or chocolate and milk one, I withdrew a piece of the *Overland Mail* dated January 9th, 1858, which contained a page torn from a pocket diary on which was written in pencil: the peak here with the
bottle SPENSER ST. JOHN.

April 30th, 1858.

84. In the bottle, probably an old Bass' beer bottle, I found fragments of *The Agricultural Gazette* and *The Gardener's Chronicle*, but the dated side is missing; also a pencil memo. with the words: Govern (ment) (La) buan do 5 Bar (ometer) was still distinguishable. Mr. LOW (now Sir H. LOW) made the ascent of Kinabalu in 1851; so, I suppose, both bottle and papers must be over thirty-six years old and have successfully withstood gales, rains and mists during that time.

85. The Kiau natives now killed the cow for which before a goat had been substituted during the ceremony consequent on taking the oath of friendship.

86. BAYER, the father of BUNAHOW, we found to be a talkative old man; in fact I dropped off to sleep and when I awoke he was still declaiming.

87. The wild raspberry grows in abundance on the village green, but the natives do not utilize it. During our walk yesterday the Dyaks found "Libu" creeper, as they call it, which, they sentimentally said, reminded them of the fragrant breath of the Dyak women. This, I believe, is the creeper whose leaves steeped in warm water are used as a substitute for tea by the *Orang Sungei* (Sulu refugees) of Labuk and Tongud. At Nyot Tonggal in 1883, a village on the latter river, I drank many cups of this "tea" and did not dislike the taste.

88. BUNAHOW'S brother has a shrunken leg and is sitting next to me and employing himself shredding tobacco leaves. The leaves are of medium size and unbroken. In cutting, the performer uses a long bamboo knife and, to prevent accidents, has a bamboo joint on his left thumb which keeps the leaves steady on a three-legged stool, representing the block. The tobacco is afterwards made into rolls which are folded into a parcel 14" by 3" by 2" deep. This, I subsequently heard, was sold four to the fathom of black cloth or 4½ cents each.

89. TAMBIAS, our late guide, informs me that he stood and watched cave swallows flying in clouds out of Bukit Simparuan, one day's journey from Kiau. TAMBIAS I found to be an intelligent young man and I believe his report, but as the Kiau men appear to be coming to the end of their rice, and provisions are five times dearer than in Tuaran, I postpone prospecting for the cave.

90. In the evening, SI GURAS, a sister of BUNAHOW'S, entertained us to *Inggano*. When the Hill Dusuns sing, they prefer to lie on their backs saying they are more comfortable in this position. Since my return I have informed our Medical Officer of the fact, and he says that there is an anatomical reason for this, as the lungs have more play than

when a singer is standing.

91. All the houses here have sloping bamboos up to the front verandah, instead of steps or a notched log; and in consequence, the men near the door are disturbed by porkers during the night.

92. Started 7.35 a. m. on the 20th March and returned to Labong Labong at 10.20 a. m. and had our noon-day meal at TAMPULAN'S house. I bought some honey in the comb, a rather common delicacy amongst the Hill Dusuns, for each house has a bees'-nest attached to the side of the window close to the sleeping dais.

93. KARAING, TAMPULAN'S wife, was as cheerful as ever, and asked me to bring up sundry brass jewelry next time I came up.

94. Left for Kahong and crossed the Kadamayan twice. At Kahong ford the water was waist deep and every moment rising. We put up at LAMPAYAN'S house, the coolies as usual finding their own quarters. The next morning TAMPULAN arrived and stated that he was coming with me. Directly afterwards I went to bathe and noticed TAMPULAN being belaboured by a woman. I thought he had been "larking," but the enraged female turned out to be his wife who insisted on his following her back and he had to go.

95. Started down the Kadamayan or Tampasuk (the river St. JOHN calls Kalopis is the above) at 11 a. m., and took the path following the river, crossed several small streams and twice the Kadamayan. At the last ford opposite Dilongan Tipud hill, the river was breast deep and forty yards wide and being in flood we thought some one would come to grief, so tried to stretch a rattan across, but the first man who attempted the passage broke the rattan and just escaped being dashed among the rapids below. The Hill Dusuns then crossed by lightly hopping with the current from one foot to the other. We all followed suit and I can state that I shall never trouble myself about deep rivers in flood again, for provided the water is not above one's head, or the rocks too close, nothing can be easier than to cross in this manner.

96. Rain commenced as we were crossing and continued

up to 3 p. m., when we arrived at Tambatuan village after trudging up a long and greasy hill. The clay hills of Tuaran are terribly annoying after a shower of rain. I remember constantly making four or five unsuccessful attempts in the path.

97. The headman LINTAID'S house was leaky, so we put up at LIMBUN'S long house of three doors. To arrive here ST. JOHN must have used another path, for he only crossed the Kadamayan twice near Dilongan Tipud hill after making a *détour* to the east.

98. LINTAID excused himself coming as he was roasting two monkeys he had snared. Next morning, the 22nd March, I wrote to Mr. WHITEHEAD, who was still at Melangkap, lower down. Started for the coast at 11.30 a. m. At the last moment LINTAID rushed up saying he had been again roasting monkeys and wished to speak to me, but I refused and left the wretch to revel in more monkeys if he liked. GAWANG had persuaded me to visit this village saying LINTAID wished to come down with me, but he seems to have changed his mind. At 6 a. m. thermometer 70°, aneroid 1,752 feet.

99. We crossed the Tampasuk river or Kadamayan beyond the gravelly stretch below Tambatuan, and toiled up a long steep hill making a path through tall grass and, on arrival at the top, were of course bathed in perspiration. A coolie from Tamperuli in Tuaran became prostrated from fever and it was with great difficulty I induced anyone to carry him even with the promise of a dollar. Shortly afterwards the carriers struck work, but had to come to their senses, for, when I remonstrated with the grumblers, and myself shouldered the sick man, as a proof of his lightness a strapping Dusun hoisted him up on his back and walked quietly down hill with his load.

100. The rain commenced as usual in torrents and we hurried on, finding shelter in a small *padi* hut of larger dimensions than usual. The Dyaks walked on saying they would get quarters ready at the nearest village whose coconut trees were visible afar off and dimly through the mist as "through a glass darkly."

101. We lighted fires in the meantime and stripped our

patient making him wear my water-proof coat, that being the only dry article in our possession. After a while he was better. Shortly after the rain had stopped Police Constable NCHANGAN appeared and led us down through padi fields and along the Lemawng stream to Lemawng village. We arrived there at 4.30 p. m. putting up at MUSAH's house, and congratulated ourselves at being again amongst the coast Dusuns.

102. Lemawng village possesses two houses and pays \$10 poll-tax per annum through SI AHMAT of Madang. Lemawng stream is a tributary of the Sungei Damit, which flows into the Tuaran river near Along.

103. I gave MUSAH a tin box which had contained cigarettes and he presented me in return with some honey and sweet potatoes.

104. Started next morning at 6.40 a. m. The sick coolie preceded us part of the way, but was soon left behind to follow on with his brother-in-law at their leisure. After crossing the Lemawng seven times, we ascended a hill, arriving at Ginambor Bundoh village at 8 a. m. and then crossed the Sungei Damit nine times, arriving at Rungus Manuntun village at 11.45 a. m. From here to Madang we had simply to wallow through a buffalo path occasionally varied by clay hills. Arrived at Madang at 12.45 p. m. At 4 p. m. Pangeran SAHBUDIN and I borrowed AHMAT'S *gobong* (dug-out) and paddled down to Tapakawn, the others walked *viâ* Tegâs hill to reach the same village, only eight, however, arriving that night.

105. Next morning, 24th March, the river was in high flood, but the rain had stopped, and waiting till all our men had arrived, we started at 8 a.m. Several times crossing tributaries, we were obliged to swim and wade breast deep, but nothing seemed to delay us and in four hours we had traversed the distance between Tampakawn and Tando, the Government station.

106. Since my return to the coast, the headman BUNAHOW and the guides TAMBIAS and LIMBAWAN, Datoh BENAWA TOKIL and a follower from the interior of Sulaman, have paid me a visit and I brought them to Gaya and Kudat by

boat sending them back in the *S. S. Paknam*. They have seen His Excellency the Governor, the Resident, and several other Europeans, including a lady, so they ought to be satisfied and civilised now.

APPENDIX.

There is little doubt but the Tampasuk route to Kinabalu is the longest and by no means the easiest.

The following plans of march may be of assistance to others wishing to explore the mountain, and I have proved that coolies are easily obtainable in Tuaran, which they are *not* in Tampasuk even under high wages.

Labuan to Gaya Island by *S. S. Paknam* eight hours, or by steam-launch *Bujang Baram*, under special favour of Mr. A. H. EVERETT, the Consul for Sarawak; or by boat two days' sail.

Gaya Island to Borongis, Tuaran, *via* Mengkabong by boat six hours and across plain to Buntai two hours' walk.

Buntai Village to Sinilau Village $3\frac{1}{4}$ hours' walk—hills.

Sinilau Village to Bungol Village $8\frac{1}{4}$ hours' walk—hills.

Bungol Village to Labong Labong Village 6 hours' walk—hills.

Labong Labong Village to Kiau Village $2\frac{3}{4}$ hours' walk—hills.
or

Gaya Island by boat to Government station, Tuaran, six hours.

Station to Madang Village eight hours' flat walking.

Lemawng Village to Tambatuan Village five hours' (hill) (on the Tampasuk River).

Tambatuan Village to Labong Labong Village five hours' (flat) (on the Tampasuk River).

Labong Labong Village to Kiau $2\frac{3}{4}$ hours (hill) (on the Tampasuk River).

The first route is the quickest by a day and requires no crossing of rivers between the Tuaran and Tampasuk, whereas the latter abounds in it.

R. M. LITTLE.